What is claimed is:

1. A projection lens system that projects projected light from a light modulator to a screen, comprising in order from a screen side:

a first lens group with a negative refractive power;

a second lens group with a positive refractive power; and

a third lens group with a positive refractive power including at least two cemented lenses and a lens with a positive refractive power positioned on an opposite side of the cemented lenses to the screen.

2. A projection lens system according to Claim 1,

wherein a first lens positioned closest to the screen in the first lens group is an aspherical lens.

3. A projection lens system according to Claim 2,

wherein a focal length f of the projection lens system and a focal length fL11 of the first lens satisfy the following condition

$$0 < |f/fL11| < 0.1.$$

4. A projection lens system according to Claim 2,

wherein a focal length f of the projection lens system, a focal length f1 of the first lens group, a focal length f2 of the second lens group, and a focal length f3 of the third lens group satisfy the following conditions

$$0.5 < |f1/f| < 1.5,$$

$$1.0 < |f2/f| < 4.2, \text{ and}$$

$$1.6 < |f3/f| < 3.5.$$

5. A projection lens system according to Claim 1,

wherein aside from cemented surfaces, a radius of curvature R of each lens composing the third lens group satisfies the following condition

$$0.005 < |1/R| < 0.06.$$

6. A projector comprising a projection lens system according to Claim 1 and the light modulator.